AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

- (Currently amended) A pharmaceutical composition comprising an antibody generated using a secreted frizzled related protein-1 (sFRP-1) of SEQ ID NO:2 as an immunogen, for regulating bone-forming activity in a mammal, wherein the antibody promotes bone-forming activity in a mammal.
- (Previously presented) A pharmaceutical composition according to claim 1, wherein the sFRP-1 is from human osteoblast cells.
- (Original) A pharmaceutical composition according to claim 1, wherein the bone forming activity is the regulation of bone growth.
- (Original) A pharmaceutical composition according to claim 1, wherein the bone forming activity is regulation of bone density.
- (Cancelled)
- (Original) The pharmaceutical composition of claim 1 wherein the composition comprises an acceptable carrier or diluent.
- (Withdrawn) A method for treating a bone disorder in a mammal comprising the steps of administering a pharmaceutical composition as in claim 1.
- 8. (Withdrawn) The method of treating the bone disorder of claim 7, wherein the disorder comprises the group consisting of (a) a bone formation disorder, (b) a bone resorption disorder, and (c) a bone density disorder.
- (Withdrawn) The method of claim 7 wherein the bone disorder is a degenerative bone disorder.

- 10. (Withdrawn) The method of claim 9 wherein the degenerative bone disorder is an osteodegeneration disorder.
- 11. (Withdrawn) The method of claim 10, wherein the osteodegeneration disorder is selected from the group consisting of osteopenia, osteoarthritis, osteoporosis.
- 12. (Withdrawn) The method of claim 7, wherein the mammal is a human.
- 13. (Withdrawn) A method for identifying a test compound that regulates sFRP activity, which method comprises determining activity of sFRP incubated in a medium containing a test compound, wherein an increase in activity relative to sFRP alone indicates the compound is an sFRP activator and a decrease in activity indicates the compound is an sFRP inhibitor.
- 14. (Withdrawn) The method of claim 13 wherein the sample comprises an immortalized human osteoblast cell that expresses a temperature-sensitive mutant of simian virus 40 large T protein antigen, wherein the cell proliferates at about 34° C but does not proliferate at temperatures exceeding about 37°C, when the T-antigen mutant is inactive.
- 15. (Withdrawn) The method of claim 14 wherein the immortalized human osteoblast cell is an hOB-01-C1-PS-09 cell, as deposited with American Type Culture Collection in Manassas, VA with the designation PTA-785, or progeny thereof.
- 16. (Withdrawn) A method of modulating Wnt-mediated signaling in a cell comprising contacting the cell with the composition of claim 1, wherein the Wnt activity is regulated.
- 17. (Withdrawn) The method of claim 16, wherein the sFRP of the composition is sFRP-1.
- 18. (Withdrawn) A method of facilitating bone formation or repair in a bone cell, comprising introducing a recombinant construct expressing an antisense, siRNA, shRNA sequence to a nucleotide sequence that encodes an sFRP-1 into bone cells.
- 19. (Withdrawn) A method of diagnosing a bone disease or disorder, the method comprising using a polynucleotide probe capable of hybridizing with the polynucleotide having the nucleic acid sequence set forth in SEQ ID NO: 1 to detect the presence or absence of an sFRP in a sample derived from a mammalian host.

- 20. (Currently amended) A pharmaceutical composition for regulating bone-forming activity in a mammal comprising at least one antibody generated using a secreted frizzled related protein-1 (sFRP-1) of SEQ ID NO:2, or regulating portion thereof as an immunogen and wherein the antibody is capable of inhibiting cell death mediated by overexpression of the polynucleotide set forth in SEQ ID NO:1.
- (Original) The pharmaceutical composition of claim 20 wherein the composition comprises an acceptable carrier or diluent.
- 22. (Cancelled)
- 23. (Cancelled)
- 24. (Previously presented) The pharmaceutical composition of claim 20 wherein the antibody is generated using at least amino acids 217-231 of an sFRP-1 protein of SEQ ID NO: 2 as an immunogen.
- 25. (Previously presented) The pharmaceutical composition as in claim 1, wherein the sFRP-1 protein has the amino acid sequence obtained by the expression of the polynucleotide sequence set forth in SEQ ID NO: 1.
- 26. (Withdrawn) A method for identifying a test compound that modulates sFRP activity, which method comprises comparing the phenotypic changes induced by the test compound on a sFRP +/+ animal with the phenotypic changes induced by the test compound on a sFRP -/- animal, wherein a phenotypic change in the sFRP +/+ animal relative to the sFRP -/- animal indicates the compound is a modulator of sFRP activity.
- 27. (Withdrawn) An immortalized human osteoblast (hOB) cell that expresses a temperature-sensitive mutant of simian virus 40 large T protein antigen, wherein the cell proliferates at about 34 °C but does not proliferate at temperatures exceeding about 37 °C, when the T-antigen mutant is inactive.
- 28. (Withdrawn) An hOB cell of claim 27 that expresses a nucleotide sequence encoding a polynucleotide that encodes an sFRP or fragment thereof.

- 29. (Withdrawn) An hOB cell of claim 27 wherein the hOB is an hOB-01-C1-PS-09 cell, as deposited with American Type Culture Collection in Manassas, VA with the designation PTA-785, or progeny thereof.
- 30. (Withdrawn) A homogenous population of cells comprising the hOB cell of claim 27.
- 31. (Withdrawn) A method for preventing a bone disorder in a mammal, which method comprises administering a pharmaceutical composition as in claim 1.
- 32. (Withdrawn) The method of preventing a bone disorder according to claim 31, in which the disorder is a bone formation disorder, a bone resorption disorder or a bone density disorder.
- 33. (Withdrawn) The method according to claim 31 in which the disorder is a degenerative bone disorder.
- 34. (Withdrawn) The method according to claim 33 in which the degenerative bone disorder is an osteodegeneration disorders.
- 35. (Withdrawn) The method according to claim 34 in which the osteodegeneration disorder selected from the group consisting of osteopenia, osteoarthritis, and osteoporosis.
- (Withdrawn) The method according to claim 35 in which the disorder is Type II osteoporosis.
- 37. (Withdrawn) A method according to claim 31 in which the mammal is a human.
- 38. (Withdrawn) A method according to claim 31 in which the pharmaceutical composition inhibits expression or activity of the sFRP in the mammal.
- 39. (Withdrawn) A method according to claim 38 in which the sFRP expression or activity is inhibited by at least 20%.
- 40. (Withdrawn) A method according to claim 38 in which the sFRP expression or activity is completely eliminated in the mammal.
- (Withdrawn) A method according to claim 7 in which the pharmaceutical composition inhibits expression or activity of the sFRP in the mammal.

- 42. (Withdrawn) A method according to claim 41 in which the sFRP expression or activity is inhibited by at least 20%.
- 43. (Withdrawn) A method according to claim 41 in which the sFRP expression or activity is completely eliminated in the mammal.